

PATENT

Attorney Docket No. D0932-00385

REMARKS

Claims 1-55 are pending in this application. Examiner withdrew claims 49-55 from consideration based on Applicant's provisional election made over the telephone on November 1, 2005 by Applicant's representative Won Joon Kouh (Reg. No. 42,763). Although the Examiner refers to a "reply filed on November 1, 2005" by the Applicant, Applicant notes for the record that no papers were filed by the Applicant on November 1, 2005 other than the telephonic election of claims made as referred to above. Claims 1-48 are rejected.

Applicant hereby confirms the election to prosecute claims 1-48. The withdrawn claims 49-55 have been canceled without prejudice. The Specification and claim 48 have been amended. After the entry of the amendments submitted herein claims 1-48 remain pending.

Claim Rejections Under 35 U.S.C. § 112

Examiner rejects claims 22-48 under 35 U.S.C. § 112, first paragraph, because the specification does not reasonably provide enablement for a specific definition of an R-value. Examiner also rejects claims 22-48 under 35 U.S.C. § 112, second paragraph, as being indefinite because it is unclear as to what units comprise the R-value claimed in these claims.

In response, the Specification and claim 48 have been amended. Paragraph [0017] of the Specification has been amended and the last sentence of that paragraph now states that "[t]he insulation products made according to the present invention has an R-value of about 2.0 to 3.5 hr·ft²·°F/Btu per inch." This amendment clarifies that the unit for R-value per inch is "hr·ft²·°F/Btu" which is the units for R-value commonly understood to be in the insulation industry especially here in North America and particularly when referred to as "R-value per inch." Therefore, Applicant believes that no new matter has been added by this amendment.

Additionally, claim 48 has been correspondingly amended to recite the units "hr·ft²·°F/Btu" in referring to the R-value per inch. No new matter has been added by this amendment.

Accordingly, Applicant believes that the §112 rejections have been overcome by these amendments. Withdrawal of the §112 rejections is requested.

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Claim Rejection Under 35 U.S.C. § 102

Examiner rejects claims 1-4, 6-15, 18, 22-27, 32-41 and 44 under 35 U.S.C. § 102(b) as being anticipated by United States published Application No. 2003/0008586 to Kajander *et al.* ("Kajander"). For the reasons provided below this rejection is traversed.

Independent claim 1 requires, among other things, that the main fiber content (*i.e.*, other than the plastic-containing bonding fibers that acts as a binder) be **"scrap inorganic insulation fibers."** One of the benefits of the claimed invention is the use of scrap fibers to lower the cost of manufacturing. In contrast, Kajander does not teach or suggest that the nonwoven mat is made from such scrap fibers. Thus, Kajander does not anticipate the invention claimed in claim 1 and claim 1 is allowable over Kajander. Withdrawal of the rejection and allowance of claim 1 is kindly requested.

Claims 2-21 depend from claim 1 which is allowable over Kajander. Thus, claims 2-21 are also allowable over Kajander. Withdrawal of the rejection of claims 2-21 and their allowance are requested.

Independent claim 22 requires, among other things, that the inorganic fiber insulation product contains **"a facing layer bonded to at least one of the two sides of the mat."** According to the Specification of the present application at paragraph [0017],

a facing layer of vapor barrier is bonded to at least one of the two sides of the fiber mat to form an insulation product. A vapor barrier may be made of polyethylene film, kraft paper, kraft paper coated with asphalt, foil, foil-backed paper, foil-backed paper coated with asphalt, or foil-scrim-kraft paper. The facing layer may also be a fabric layer for improving the strength and handleability of the insulation material during installation and dust reduction. The fabric layer may be made from, for example, scrim, woven, non-woven, knit, braided, needled, or composite fabrics.

Thus, a facing layer is a discrete layer of material different from the fibrous mat that is bonded to the mat.

In contrast, Kajander does not teach or suggest bonding a facing layer to the nonwoven mat disclosed therein. In fact, bonding a facing layer to at least one of the two sides of the nonwoven mat of Kajander would be in direct conflict with the teachings of Kajander because Kajander's nonwoven mat is made for optimal direct bonding to wood products. For example, Kajander states:

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mats of the present invention surprisingly produce high bonding strength with wood. Most importantly, use of the inventive mat produces higher glass fiber loadings in the "glue line" of wood laminates and composites than prior art mats for this purpose have produced. The present invention is based in part on the discovery that limiting the binder content in the finished mat to a low level greatly improves the bond strength between the mat and wood

(underline added) (Kajander at paragraph [0011]). In other words, the nonwoven mat of Kajander which contains "small amount" of binder (Kajander at paragraph [0009]) increases the glass fiber loading of the mat which improves the bond strength of the nonwoven mat to wood layers in wood laminates. Bonding a layer of facing between the nonwoven mat and the wood layer would interfere with the ability of the nonwoven mat to bond to the wood layer.

Examiner does state that "[a]n intermediate layer of the laminate which is used as a flame-retardant may comprise a sheath of polyethylene or kraft fibers (pg. 2 col. 1 paragraph 0017; pg. 1 col. 2 paragraph 0010 and Example 1, respectively)." Examiner's statement is not clear whether this statement is meant to point to the portions of Kajander which discloses a facing layer, but, even if it were, the Examiner is in error. A careful study of the portions of Kajander cited by the Examiner shows that those sections do not describe "a facing layer bonded to at least one of the two sides of the mat."

First, paragraph [0017] of Kajander states that the inventive mat may contain "pigments, dyes, flame retardants, and other additives" but only "so long as they do not significantly reduce the ability of the mat to bond to a wood surface" (underline added). That paragraph goes on to state that "[t]he pigments or other additives can be included in the fiber slurry, the binder slurry or can be sprayed or otherwise coated onto the mat" Thus, the additives disclosed in paragraph [0017] of Kajander are not "a facing layer bonded to . . . the mat" as required by claim 22.

Paragraph [0010] of Kajander also cited by the Examiner merely discusses that the nonwoven mat may be made from a mixture of glass fibers and cellulose fibers but does not discuss any facing layers that may be bonded to the mat. Paragraph [0010] further discusses that the binder material may be "binder fibers" but again that discussion does not mention any facing layers that may be bonded to the mat.

Example 1, discussed in paragraphs [0027] and [0028] of Kajander, also cited by the Examiner, do not describe any facing layers that may be bonded to the mat either. Therefore, Kajander fails to teach or suggest the invention claimed in claim 22 and Kajander can not anticipate

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claim 22 under 35 U.S.C. § 102(b). Withdrawal of rejection of claim 22 and its allowance are kindly requested.

Claims 23-48 depend from claim 22 which is allowable over Kajander. Thus, claims 23-48 are also allowable over Kajander. Allowance of claims 23-48 is requested.

Based on the above, the remaining rejections are moot and will not be discussed.

CONCLUSION

Applicants believe that the pending claims as amended are in condition for allowance. Reconsideration of the present application, withdrawal of the rejections and allowance of the pending claims are kindly requested. Should Examiner not agree with Applicants' position, then a telephone interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the application.

As shown in the attached Patent Application Fee Determination Record sheet, no additional claim fee is believed due for the filing of this amendment and response.

Respectfully submitted,

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